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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/535,859	03/27/2000	Larry M. Ernst	BLD990050US10036.0060	3885

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KONRAD RAYNES & VICTOR, LLP  
315 S. BEVERLY DRIVE  
# 210  
BEVERLY HILLS, CA 90212

EXAMINER

GRANT II, JEROME

ART UNIT	PAPER NUMBER
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2626

DATE MAILED: 03/12/2004

6

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/535,859

Applicant(s)

ERNST

Examiner

Jerome Grant II

Art Unit

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 15, 16, 18, 19, 21, 29-32 and 34 is/are rejected.
- 7) ☒ Claim(s) 8-14, 17, 20, 22-28, 33 and 35-38 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_

JEROME GRANT II  
PRIMARY EXAMINER

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1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4, 5, 7, 15, 16, 18, 19 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Bacon.

With respect to claim 1, Bacon teaches a method for reducing toner in an image comprised of raster pel data comprising: a controller 80 for determining surrounding pixels (W, Y, Z and V) of subject pels X (1-4); for each subject pel X(1-4) generating a position information (on or off) indicating an alignment of the sub-pel region in the pel, wherein the position information is used to position the sub-pel region produced by the sub-pulse width power in the pel (determination of which of the 4 sub pels will be in an on position).

With respect to claims 2 and 16, Bacon teaches wherein toner is attached to the charged sub pel (i.e., if sub region designated as a print region).

With respect to claims 4 and 18, Bacon teaches each subject pel, determined whether the pattern of the surrounding pels indicates that the subject pel is in a black filled region (see figure 3) wherein the position information is used to align the sub-pel regions  $x(1-4)$  in the subject pel in the black filled region to adjacent pels of the subject pels (W,Y,V,Z) regions.

With respect to claims 5 and 19, this condition is met if X1 and X4 are on or off together and X2 and X3 are opposite in position to that of X1 and X4.

With respect to claims 7 and 21, Bacon teaches surrounding pels (WYZV) include pels from the scan line as claimed wherein the subject pel is the black filled region, see figure 3. if a plurality of surrounding pels are all black (pixels W,Y,V,Z are arbitrarily on.

With respect to claim 15, Bacon teaches a system for reducing toner comprising: means (controller 80) for determining surrounding pels (WYVZ) of subject pels  $X(1-4)$  for each subject pel  $X(1-4)$  generating a position information (on or off) indicating an alignment of the sub-pel region in the pel, wherein the position information is used to position the sub-pel region produced by the sub-pulse width power in the pel (determination of which of the 4 sub pels will be in an on position).

2.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 29-32 and 34 are rejected under 35 U.S.C. 102(b) as being anticipated by Seto.

With respect to claim 29, Seto teaches a computer readable transmission medium RAM including a LUT 35 for reducing toner in an image comprised of raster pel data (see col. 13, lines 44-49), comprising: a plurality of output values (8 distinct pulse widths) wherein one output value is provided for at least one pattern of pels including a subject pel, wherein the output value is substituted for the subject pel (M-Dot), see also figure 34, and wherein the output value comprises a sub-pulse width power (1159) see figure 33, to charge a sub-pel region within the subject based on position information (m+1) Dot indicating a pel alignment. See different sub-pel regions affected by varying pulse widths.

With respect to claim 30, see figure 14B which shows the affect of the charge for use of toner.

With respect to claim 31, Seto teaches reducing radiation (toner charges) as taught at col. 9, line 12 and col. 20, lines 19-24, 34-38 and 47-55. Note that changes in phase of the clocks affect the amount of charge used to adhere the toner.

With respect to claim 32, Seto teaches wherein the output values for subject pels (according to figure 14b) in a black filled region include position information (m+11) dot aligns the sub-pel region in the subject pels (figure 14B) in the black filled region to be adjacent (as identified by the examiner in figure 14B) to the sub-pel region in one adjacent subject pel in the filled region. See figure 14B for adjacent pixels being filled with the black region.

With respect to claim 34, Seto teaches that this limitation is inherent in that although not shown by figure 14B, the surrounding pixels can be all black in respective regions.

3.

#### Claims Objected

Claim 3, 6, 8-14, 17, 20, 22-28, 33 and 35-38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerome Grant II whose telephone number is 703-305-4391. The examiner can normally be reached on Mon.-Fri. from 9:00 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly A. Williams, can be reached on (703) 305-4863. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

J. Grant II